INDEX TO VOLUME III

New scientific names are printed in full faced type

Abies balsamea, rust, 73; concolor, Herpotrichia on, 154, 155, winter injury, 112; concolor var. violacea, Cylindrocarpon on, 212, 217, 225; lasiocarpa, Herpotrichia on, 152, 155, Melampsorella on, 17, winter injury, 112.

Abnormal roots of figs, 115

Acer, abnormal roots, 115; Nectria on, 227; Ramularia on, 221

Acrotheca solani, 209

Agar culture of wheat as a means of seedling purification, 74

Albizzia, Nectria on, 229

Allium, wilt, 35

Almond, 59

Alnus oregona, root rot, 111

Alternaria, 195; rot of apples, 72, 119–122

Ambrosia artemisifolia, 311; trifida, 311

Amelanchier canadensis, Plowrightia on, 312

American blotch disease, of barley, 76

American Botrytis blight of peonies, 70

American Phytopathological Society, meeting of, 65; constitution and membership, see October number

Amphisphaeria acicola, 156, 157

Anacardiaceae, 59

Anacardium, Nectria on, 229

Ananas, wilt, 35

Anchusa, Ramularia on, 222

ANDERSON, H. W., Notes on the genus Endothia (abstract), 67

ANDERSON, PAUL J., Wind dissemination of the chestnut blight organism (abstract), 68

Another host for Rhodochytrium, 311

Anthracnose, rose, 70; sweet pea, 70

Aphanomyces levis, 76

Aphis pomi, 273

Apple, abnormal roots, 115; Alternaria rot, 72, 119; bitter rot, 82, 289; black rot, 81, 82, 288; blight, 3, 273; blossom-end rot, 120; brown rot, 79, 109, 110; canker, 35, 80, 84, 215, 216, 227, 290; core rot, 120; fruit rot, 216, 221, 223, 226; fruit spot, 99, 119, 249; rust, 72, 282; scab, source of spring infection, 265; Sclerotium on, 198; silver leaf disease, 80; spot rot, 119; storage rot, 120; water core, 68, 121; See Pyrus

Apricot blight, 3; see Prunus

Araliaceae, 35

Armillaria mellea, 111

Asclepias pumila, 311

Ascochyta, 197, 204, 229; fragariae, 230; pisi, 51–57, ascigerous stage, 71

Ascochytella, 205

Ascomycetes, determination from conidial stage, 24

Asparagus, rust, 78, 82; wilt, 35

Aspen, see Populus

Aspergillus, 201

Aster, Coleosporium on, 16, 17. 250; wilt, 35

Auricularia lobata, 192; mesenterica, 192

Autoclave, portable, 177

Azalea, 149

BACHMANN, FREDA M., The migration of Bacillus amylovorus in the host tissues, 3, 72

Bacillus amylivorous, 273; amylovorus, 83, 273, stains for, 9, inoculation with, of flowers, 4, of fruits, 8, of shoots, 6, migration in host tissues, 3; lathyri, 75

Bacteria, 35, 42, 122

Bacterial disease of the sweet pea and clovers, 74

Bacterial rot of cucumbers, 169

Bacterium, 255; **citriputeale,** 69, 280; solanacearum, 72; tumefaciens, 59, 72

Bactridium, 209

Baldwin spot, 119
Barberry and its relation to black rust of grain, 178; see Berberis
Bark blight, white pine, 130
Bark rusts of Juniperus virginiana, 249
Barley, damping off, 45; Helminthosporium on, 75
BARRETT, J. T., Physoderma zeae-maydis Shaw in Illinois (title), 74
BARTHOLOMEW, E. T., Black heart of potatoes, 180
Bay tree, 149
Bean, bacteriosis, 75; wilt, 38
Beech, Nectria canker, 214; Polyporus on, 101; see Fagus
Beets, sugar, diseases of, 76
Berberis, Hypoderma on, 136; vulgaris, rust, 178
Beta vulgaris, 32
Betula lenta, twig canker, 248; lutea, root rot, 111; nigra, root rot, 111; occidentalis, Auricularia on, 192
Biologic forms of black knot, 246
Biophila, 208
Birch, black, twig canker, 248; see Betula
Bitter rot, apple, 82, 288, 289
Black leg, cabbage, 71
Black heart of potatoes, 180
Black knot, 312; biologic forms, 246
Black pit of lemon, 69, 277
Black rot, apple, 81, 82, 288; cabbage, 71; grape, 20, 81, 84; violets, 74
Black rots of the sweet potato, 70, 159
Black rust, grain, 178
Black scab, potato, 18
Blattrollkrankheit, 28, 33, 43, 69
Blight, apple, 3; apricot, 3; bark, white pine, 130; cereal, 26, 34, 35, 45; fire, dissemination of, 273; leaf, white pine, 133; peony, 70; pea, 51; pear, 3, 79, 82; plum, 3; quince, 3; sugar cane, 88; see chestnut
BLODGETT, F. M., Hop mildew in New York (abstract), 76
Blossom-end rot, apple, 72, 120
Boletus dryadeus, 285; pseudo-igniarius, 285
Bordeaux mixture, for apple rot, 122, 288; for apple scab, 268.
Borer, elm, 63; sugar cane, 88, 89
Botryosphaeria fuliginosa, 290, 295
Botrytis disease of dahlias, 72, 171
Botrytis cinerea, 171 paeoniae, 70; vulgaris, 70, 195
Brassica, 71; wilt, 35–38; oleracea var. capitata, wilt, 30
Bromelia pinguin, 75
Bromeliaceae, 35
BROOKS, CHARLES, Quince blotch and apple fruit spot, 249
Brown-rot canker of the peach, 75, 105
Brown rot, 79; apple, 109, 110; cherry, 109, 110; peach, 75, 109; plum, 109; sand cherry, 109
Brown-tail moth, 143, 146
Buckelschorf, potato, 256, 259
Buckeltiefschorf, potato, 256
BURGER, O. F., A bacterial rot of cucumbers, 160

Cabbage, disease resistance, 71; see Brassica
Cacao, Nectria, on, 212
Caeoma pusillum, 207
Cajanus, wilt, 35
Calonectria, critical study of, 25, 33, 197; **graminicola**, 26, 34, 203, 205, 218, 231; nivalis, 218, 231
Campanula, Ramularia on, 216
Campylomma verbasci, 273
Cane, see sugar cane
Canker, apple, 35, 109, 215, 216, 290; Nectria, 35, 80, 84, 212, 214, 216, 227; birch, 248; peach, 75, 105; plum, 109; potato, 18
Capsella bursa-pastoris, Cystopus on, 70
Capsicum, 35
Carica papaya, 75
Caryophyllaceae, 35
Castanea dentata, 129; root rot, 111; see chestnut
Castilleja, Cronartium on, 15, 167; linearis, Cronartium on, 250; miniata, Peridermium on, 167
Cedar, apples, 282; western red, heart rot, 142
Centralstelle für Pilzkulturen, 86
Cephalosporium, 40
Ceratitis capitata, 146
Ceratocystis fimbriata, 161, 162
Cercopidae, 88
Cercospora, 197, 201

Cereals, black rust, 178; scab, 31, 32, 35; seedling blight, 26, 34, 45
Chaetomium, 199
Chaetosphaeria, 154
Charcoal disease, sweet potato, 71
Charcoal rot, sweet potato, 161
Cherry, 59; brown rot, 79, 109, 110; see Prunus
Chestnut blight, 61, 67, 68, 73, 78, 84, 87, 296
Chichi, 115
Chlamydatus associatus, 273
Chlamydospore, definition of, 24
Choke cherry, see Prunus
Chrysophlyctis endobiotica, 146, 256
Cicer, wilt, 35
Citrullus, wilt, 29, 35; vulgaris, rot, 32
Citrus, melanose, 190; wilt, 35; aurantium, crown gall, 59; limetta, crown gall, 59; limonum, 281; crown gall, 59; vulgaris, crown gall, 59; see lemon, lime, orange
Cladosporium, 195; carpophilum, 270
Claviceps, 24, 25
Cleveland meeting of the American Phytopathological Society, 65
Clover, bacterial disease, 74
Club root, cabbage, 71
Cocci, 255
Coccomyces pini, 130, 131, 133
Coccophacidium pini, 131, 133
Codling moth, 78, 83
Coleosporium, 16; **delicatulum,** 250; **inconspicuum,** 250; sonchi-arvensis, 306; vernoniae, 250
Colletotrichum, 75, 190; falcatum, 75
Color standards and color nomenclature, by RIDGEWAY, ROBERT, review of, 186
Compositae, 35
Comptonia asplenifolia, rust, 62, 308, 309
Conditions influencing infection of apple leaves by Gymnosporangium macropus, 72
Conifers, damping-off, 40
Control of apple black-rot, 288
Convolvulaceae, 35
COOK, MEL. T., A botrytis disease of dahlias (abstract), 72; and MARTIN, G. W., Alternaria rot of apples, (abstract), 72, The Jonathan spot rot, 119; and SCHWARZE, C. A., A botrytis disease of dahlias, 171
Cordyceps, 24, 25
Core rot, apple, 72, 120, 122
Coreopsis verticillata, 250
Corn, see Zea
Corrosive sublimate, for cankers, 109
Corticium vagum var. solani, 76
Corylus, Nectria on, 227
Coryneum, 305
Cosmopepla carnifex, 273
Cotton, see Gossypium
Cowpea, see Vigna
Crab apple, Sphaeropsis, on, 293
CRABILL, C. H., Production of secondary sporidia by Gymnosporangium, 282
Creonectria ipomoeae, 34
Cronartium ribicola and the proscription of Ribes nigrum, 73
Cronartium, 16; coleosporioides, 167; comptoniae, 62, 308; filamentosum, 15, 16, 167; quercuum, 16
Crown gall, peach, inoculations with, 59
Cruciferae, 35
Cryptosporella viticola, cause of grape rot, 20
Cucumber, bacterial rot, 169
Cucurbitaceae, 35
Curly leaf, potato, 69
Currant, see Ribes
Cydonia, crown gall, 59; sinensis, fruit, spot, 249; vulgaris, abnormal roots, 115, fruit spot, 250; see quince
Cylindrocarpon, 225; **cylindroides,** 205, 212, 215, 217, 225; **mali,** 205, 212, 215, 217, 225, 227
Cylindrosporium pomi, 249
Cystopus candidus, resting mycelium, 70
Cytospora, 248

Dahlia, Botrytis on, 72, 171
Damping-off and root rot parasites of sugar beets, 76
Damping-off, barley, 45; conifers, 40; oats, 45; wheat, 45; sugar beets, 76; sweet pea, 70
Darluca filum, 82
DARROW, W. H., see MORSE, W. J.
Date palm, scale insects, 146
Daucus carota, Ramularia on, 221
DAVIS, J. J., The introduction of a European pine rust into Wisconsin, 306
Derris, Nectria on, 229

Destructive effects of Trametes pini and Echinodontium tinctorium, 142
Determination of some ascomycetes from conidial stage, 24
Dianthus, wilt, 35
Diaporthe batatatis, 245; parasitica, 61
Diatraea saccharalis, 88
Didymaria, 208; helvellae, 208; ungeri, 207, 209
Didymopsis helvellae, 208
Differentiation of fungus groups with cylindrical and falcate conidia, 197
Differentiation of species, pure culture method for, 25
Diospyros kaki, crown gall, 59
Diplodia, 165; malorum, 290; pseudodiplodia, 82, 290
Diplosphaerella, 204, 229
Discolor, 27, 28, 31, 209
Disease of peanut plants caused by Bacterium solanacearum, 72
Disease of the sweet pea, 70
Dothiorella, 290

EASTHAM, J. W., see GÜSSOW, H. T.
Ebenaceae, 59
Echinodontium tinctorium, 142
EDGERTON, C. W., The stem rot or the Hawaiian "Iliau" disease of sugar cane, 76, 93
EDSON, H. A., Damping-off and root rot parasites of sugar beets (abstract), 76
Effect of the steam formalin treatment on certain soil organisms, 74
Egg plant, Hypomyces on, 34
Eisenfleckigkeit, potato, 182
Elegans, 28
Elm, Fusarium on, 38; see Ulmus
Empoasca mali, 273
Enchnosphaeria coulteri, 156, 157; nigra, 153, 155; pinetorum, 153
Endothia, notes on the genus, 67; gyrosa, 61; parasitica, 67; parryi, 67; radicalis, 61, 192; virginiana, 61, 67, 73, 192
Epidemic of needle diseases in Idaho and western Montana, 252
Eriosphaeria, 156
Erysiphe polygoni, 70
Eucalyptus tereticornis, crown gall, 59
Euhypomyces, 224
Euphorbia cyparissias, 12
Eupionnotes, 206
European blotch disease, barley, 76
Euthamia graminifolia, 250

Fagus silvatica, Auricularia on, 192; Nectria on, 227
FAWCETT, H. S., Two fungi as casual agents in gummosis of lemon trees in California, 194
Federal Horticultural Board, 148, 193, 196
Federal plant quarantine act, 143
Fern rusts, 73
Ficus carica, crown gall, 59, 60
FIELD, ETHEL C., See HARTER, L. L.
Figs, abnormal roots, 115, see Ficus
Filtering apparatus, 176
Fir, grand, heart rot, 142; see Abies
Fire blight, importance of tarnished plant bug in dissemination of, 273
Flachschorf, potato, 256
Flame tree, 59
Flemming's solution, 9, 256
Fomes applanatus, 111; igniarius, 111, 312
Foot rot, a new disease of the sweet potato, 243
Fragaria, Mycosphaerella, on, 231; see strawberry
FRASER, W. P., Further cultures of heteroecious rusts (abstract), 73
Fraxinus, Nectria on, 227
FREEMAN, E. M., Harry Marshall Ward (1854–1906), 1
Froghopper, 88, 89
Fruit spot, apple, 99, 249
FULTON, H. R., Conditions influencing infection of apple leaves by Gymnosporangium macropus (abstract), 72; and WINSTON, J. R., A disease of peanut plants caused by Bacterium so lanacearum (abstract), 72
Further cultures of heteroecious rusts, 73
Fusaria, division into sections, 26
Fusarium batatatis Woll. M. S., not Nectria ipomoeae Hals., the cause of the sweet potato stem rot, 68
Fusarium or Verticillium on okra in North Carolina? 183

Fusarium problem, studies on, 24
Fusarium, 24, 69, 71, 74, 159, 195, 200–231; acquaeductum, 206; affine, 229; album, 224; bagnisianum, 210; batatatis, 68; butleri, 38; coeruleum, 31, 32, 41, 42, 44; candidum, 220, 226; **conglutinans,** 28, 30, 38; constrictum, 210; cubense, 38; didymum, 33, 221; discolor var. sulphureum, 26, 31, 42; falcatum, 29, 31, 32, 40, 41; georginae, 210; gibbosum, 32; hibernans, 34, 231; lagenariae, 210; lichenicola, 223; lycopersici, 28, 29, 38; mali, 217, 226; martii, 30, 41; minimum, 34, 231; minutissimum, 210; nivale, 34, 218, 231; niveum, 28, 29, 38; orthoceras, 28, 30, 200, 206; oxysporum, 28–30, 38, 41–45, 69; pandani, 210; platanoides, 210; polymorphum, 222; **redolens,** 28, 29; rhizogenum, 222; rubiginosum, 26, 31, 40, 41, 45; **sclerotium,** 29, 32; semitectum, 206; solani, 30, 40, 41, 42, 45, 183; subulatum, 32, 45, 221, 223; tracheiphilum, 28, 29, 38; trichothecioides, 26, 31, 42, 206; tuberis, 210; tuberivorum, 206; udum, 38, 206, 221; vasinfectum, 28, 29, 33, 38, 39, 183, 184; vasinfectum, var. **inodoratum,** 29; ventricosum, 32, 41, 42, 207; willkommii, 35, 225–227
Fusicladium, 265–267
Fusicoccum viticolum, 22
Fusidium candidum, 226
Fusisporium didymum, 33, 41, 209, 221
Fusoma biseptatum, 231; triseptatum, 231

GARDNER, M. W., see Heald, F. D.
Gibberella, 25, 26, 33, 202, 203, 209, 218; cyanogena, 34; saubinetii, 25, 26, 31, 34, 45, 214; tritici, 34; tropicalis, 34
Gibbosum, 28, 31
GIDDINGS, N. J., and NEAL, D. C., Control of apple rust by spraying (title), 73
GILBERT, E. M., Biologic forms of black knot, 246
GILMAN, J. C., review by, 186
Gingko biloba, abnormal roots, 115
Ginseng, diseases of, 192
Gloeosporium, 40, 202; fructigenum, 82
Glomerella, 70, 201; cingulata, 82, 202; gossypii, 202; lindemuthiana, 202; rufomaculans, 70
Gnomonia iliau, 93
Gnomoniella, 70
Gooseberry, abnormal roots, 116; mildew, 81
Gossypium, wilt, 35–39; barbadense, wilt, 29; herbaceum, wilt, 29
Gram, 36
Grape, black rot, 20, 81, 84; Phylloxera on, 150; powdery mildew, 84
Grape fruit, 69, 278
GRAVES, A. H., Notes on diseases of trees in the southern Appalachians, I, 129
Green muscardine, use of to control sugar cane pests, 88
GREGORY, C. T., A rot of grapes caused by Cryptosporella viticola, 20, 67
Gummosis, of lemon, 194, 195
GÜSSOW, H. T., Powdery scab of potatoes. Spongospora subterranea (Wallr.) Johns., 18, Theory and practice of legislation against plant diseases (title), 67, The barberry and its relation to black rust of grain, 178; and EASTHAM, J. W., Powdery or corky scab, Spongospora subterranea (Wallr.) Johns., and its occurrence in North America (title), 76
Gymnosporangium, secondary sporidia, 282; clavipes, 249, 284; effusum, 249; juniperi-virginianae, 282; macropus, 72; nidus avis, 249
Gypsy moth, 78, 143, 146

Hamamelis virginiana, fungus on, 293
HARTER, L. L., Foot rot, a new disease of the sweet potato, 243; and FIELD, ETHEL C., Fusarium batatatis Woll. MS, not Nectria ipomoeae Hals., the cause of the sweet potato stem rot (abstract), 68
HARTLEY, CARL, Twig canker on black birch, 248; Bark rusts of Juniperus virginiana, 249
HEALD, F. D., Some notes on the dissemination of Diaporthe parasitica (title), 68; and GARDNER, M. W., The relative prevalence of pycnospores and ascospores of the chestnut blight fungus during the winter, 296

HEDGCOCK, GEORGE GRANT, Notes on some western Uredineae which attack forest trees, II, 15, 69, Notes on winter-killing and smelter injury in the forests of Montana, II (title), 69, Notes on some diseases of trees in our national forests, III, 111; and LONG, W. H., Notes on cultures of three species of Peridermium, 250, An undescribed species of Peridermium from Colorado, 251
Helianthus divaricatus, 70, 250
Helminthosporium diseases of barley in Wisconsin, 75
Helminthosporium, 154; gramineum, 75; sativum, 76; teres, 76
Hemlock, western, heart rot, 142; see Tsuga
Heracleum, Ramularia on, 221
Herpotrichia and Neopeckia on conifers, 152
Herpotrichia nigra, 152–157
HESLER, LEX R., Physalospora cydoniae, 290
HEWITT, J. LEE, Puccinia pruni-spinosa killing plum nursery stock, 270; Rose mildew, 270
Hibiscus, wilt, 35; esculentus, wilt, 33
Hicoria pecan, crown gall, 59
Hollow heart, potato, 182
Hop mildew in New York, 76
Hormiactis, 209
HOWITT, J. E., The apothecial stage of Sclerotinia fructigena (Pers.) Schroet. in Ontario in 1912 (title), 69
HUMPHREY, C. J., Winter injury to the white elm, 62
Hypocrea, 24, 25, 224
Hypocreales, 25, 26
Hypoderma brachysporum, 136; desmazierii, 135–137; lineare, on white pine, 139; strobicola, 136
Hypomyces, 24–27, 33, 42, 200–204, 211, 224; asterophorus, 203; chrysospermus, 203; **ipomoeae,** 34, 42, 204, 214, 224; linkii, 203; ochraceus, 203; pezizae, 203; rosellus, 203; **rubi,** 204, 205, 208, 211, 216, 223, 224; solani, 40, 41, 203, 224; tulasneus, 203; violaceus, 203

Iliau disease, sugar cane, 93
Importance of the tarnished plant bug in the dissemination of fire blight in nursery stock, 273
Indigo, 36
Indigofera, wilt, 35
Insects, relation to fire blight, 273
Internal brown rot, potato, 182
International conference on phytopathology, 193, 312
International Institute of Agriculture, 86, 193, 312
International phytopathology and quarantine legislation, 143
Introduction of a European pine rust into Wisconsin, 306
Ipomoea, 28, 35; batatas, 164, 243, 245; see potato
Isariopsis, 209

JAGGER, IVAN C., The small lettuce Sclerotinia, an undescribed species (abstract), 74
Java black rot, sweet potato, 164
JEHLE, R. A., The brown rot canker of the peach, 75, 105
JOHNSON, A. G., Helminthosporium diseases of barley in Wisconsin (abstract), 75
JOHNSTON, JOHN R., Notes on the fungus diseases of sugar cane in Porto Rico (abstract), 75
Jonathan fruit spot, 99
Jonathan spot rot, 119
JONES, L. R., The importance of closer international relations in phytopathology (title), 67; The possibilities of disease resistance in cabbage (abstract), 71
Juglandaceae, 59
Juglans californica, crown gall, 59; californica var. hindsii, crown gall, 59 cinerea, crown gall, 59; nigra, crown gall, 59; regia, crown gall, 59; sieboldiana, crown gall, 59
June-berry, see Amelanchier
Juniperus, smelter injury, 113; communis, Herpotrichia on, 152–155; nana, Herpotrichia on, 152–155; occidentalis, winter injury, 112; scopulorum, winter injury, 112; sibirica, winter injury, 112; virginiana, bark rusts, 249

Kräuselkrankheit, 33, 69
Kropfmaser, 115

Laboratory equipment, 175
Lachnosterna, 88, 89
Lactaria, 200
Larch, needle cast, 252
Larix occidentalis, root rot, 101, 102, 111, winter injury, 112
Lasiodiplodia tubericola, 71, 164
Lasiosphaeria acicola, 156, 157; coulteri, 153, 157
Lathyrus, bacterial disease, 75
Lauroceras lyonii, crown gall, 59
Leaf roll, curly leaf and other new potato diseases, 69
Legislation, phytopathology and quarantine, 85, 143
Leguminosae, 35
Lemon, 59; black pit, 69, 277; gummosis, 194, 195; see Citrus
Lepidium virginicum, 70
Lettuce, Sclerotinia on, 74
Liliaceae, 35
Lime, 59, 69, 278; see Citrus
Lime-sulphur, 108, 268, 288
Linaceae, 35
Linum, wilt, 35
Liriodendron tulipifera, 129
LONG, W. H., A prelminary note on Polyporus dryadeus as a root parasite on the oak, 285; see HEDGCOCK, GEORGE G.
Lophodermium brachysporum, 133–139; pinastri, 135, 137, 252
Lupinus, wilt, 35
LUTMAN, B. F., The pathological anatomy of potato scab, 255
Lygus pratensis, 273

MACBRIDE, T. H., Note on Plowrightia morbosa, 311
MACMILLAN, H. G., review by, 187
Macrophoma, 164, 165, 290
Malvaceae, 35
MANNS, THOS. F., A bacterial disease of the sweet pea and clovers (abstract), 74
Marasmius, 63; plicatus, 75, 93, 94; sacchari, 75
Martiella, 26, 27, 28, 30, 204, 224
MARTIN, G. W., see COOK, MEL. T.
Massariaceae, 294
Medicago, wilt, 35
Mediterranean fruit fly, 146
MEINICKE, E. P., Notes on Cronartium coleosporioides Arthur and Cronartium filamentosum, 167
Melampsora arctica, 73; medusae, 73
Melampsorella elatina, 17
Melanconis modonia, 305
Melanconium iliau, 95; sacchari, 75; saccharinum, 75
Melanops quercuum, 290; quercuum forma vitis, 295
Melanose, 190
Melanospora, 25, 26, 199
MELHUS, I. E., Septoria pisi in relation to pea blight, 51; Resting mycelia of Phytophthora and other related species (abstract), 70
Merkel's fluid, 9
Metarrhizium anisopliae, 88
Method, pure culture, for differentiation of species, 25
Mexican fruit fly, 146
Microcera, 206, 209
Migration of Bacillus amylovorus in host tissues, 3
MILBRATH, D. G., Agar culture of wheat as a means of seedling purification (abstract), 74
Mildew, hop, 76; rose, 270; powdery, gooseberry, 81, grape, 81, oak, 81, strawberry, 81
Monilia, 79
Monosporium, 40
MORSE, W. J., Some borrowed ideas in laboratory equipment, 175; and DARROW, W. H., Is apple scab on young shoots a source of spring infection?, 265
Mosaic, sweet pea, 70; tobacco, 69; tomato, 69
Mucor, 40, 195, 201
Musa, wilt, 35, 38, 39
Musaceae, 35
Mycosphaerella pinodes the ascigerous stage of Ascochyta pisi, 71

Mycosphaerella, 25, 26, 33, 229; critical study of, 197; citrullina, 204; fragariae, 204, 230; lethalis, 204; pinodes, 55, 56, 204; **solani,** 203–205, 229, 230; tussilaginis, 230
Myrtaceae, 59
Myxosporium, 248

Nectria, 24–27, 33, 42, 80, 212, 226, critical study of, 197; anacardii, 228; capitata, 228; cinnabarina, 42, 203, 229; cinnereo-papillata, 228; coccinea, 80, 214, 226; coffeicola, 34; cucurbitula, 203, 212, 217, 225, 226; discophora, 202, 205, 206, 212–215, 226–228; ditissima, 35, 80, 84, 214–217, 226; eustoma, 228; galligena, 35, 80, 202, 205, 213–217, 226, 228; goroshankiniana, 27, 34; graminicola, 34, 218, 231; huberiana, 228; ipomoeae, 27, 34, 68, 202; jungneri, 228; laurentiana, 75; lichenicola, 203, 229; mammoidea, 203, 217, 226; moschata, 203; oropensoides, 203, 229; peziza, 203, 229; rubi, 202, 203, 222, 224; saccharina, 34; solani, 40, 41; striatospora, 212, 228; theobromae, 228; vandae, 27
Nectrieae 25
Nectriopsis, 27, 204, 224; violacea, 203
Needle diseases, epidemic of, in Idaho and western Montana, 252
Nekrose des Phloëms der Kartoffelpflanze, die Ursache der Blattrollkrankheit, by QUANJER, H. M., review of, 186
Neocosmospora, 25, 33–38, 199
Neopeckia, Herpotrichia and, on conifers, 152; coulteri, 152, 155, 157
New Hampshire fruit spot, 119
New York apple tree canker, 290
NORTON, J. B. S., Jonathan fruit spot, 99
Norway spruce, 306; see Picea
Notes on Cronartuim coleosporioides Arthur and Cronartium filamentosum, 167
Notes on Cronartium comptoniae, 62, 308
Notes on cultures of three species of Peridermium, 250
Notes on diseases of trees in the southern Appalachians. I, 129
Notes on the fungus diseases of sugar cane in Porto Rico, 75
Notes on the genus Endothia, 67
Note on Plowrightia morbosa, 311
Notes on some diseases of trees in our national forests. III, 111
Notes on some western Uredineae which attack forest trees. II, 15

Oak, mildew, 81; Polyporus on, 101, 285; see Quercus
Oats, damping-off, 45; rust, 179
O'GARA, P. J., Studies on the water core of apple, 68, 121
Okra, wilt disease, 33, 183
Oöspora, 18, 255
Orange, 59, 69, 278; see Citrus
Orthotylus flavosparsus, 273
ORTON, W. A., International and phytopathological problems connected with quarantine legislation (title), 67; Leaf roll, curly leaf and other new potato diseases (abstract), 69; International phytopathology and quarantine legislation, 143
Otthia pyri, 290
Ovularia, 208
Ozonium, 40

Peony, blight, 70
Palm, date, scale insects, 146
Panama disease, 35
Panax, wilt, 35
Panicum barbinode, 75
Parlatoria blanchardi, 146
Pathological anatomy of potato scab, 255
Pea blight, Septoria pisi in relation to, 51, 71; see Pisum
Peach, brown rot, 75, 79, 105; canker, 105; crown gall, inoculations with, 59; scab, 270; yellows, 143; see Prunus
Peanut, bacterial disease, 72
Pear, Alternaria rot, 119; blight, 3, 79, 82, 275; brown rot, 79; crown gall, 59; fruit spot, 99; Nectria canker, 80; scab, 266; Sphaeropsis on, 293; see Pyrus
Pecan, 59
Pedaliaceae, 35
Penicillium, 200, 277; digitatum, 195; roseum, 195
Pepper tree, 59

Peridermium, 62, 73, 306; cultures of, 250; undescribed species from Colorado, 251; balsameum, 73; **betheli**, 251; cerebrum, 16; coloradense, 17; delicatulum, 250; filamentosum, 15, 167; harknessii, 15, 16, 252; inconspicuum, 250; montanum, 16; stalactiforme, 167, 250; strobi, 146
Periola tomentosa, 40, 43
Peronospora ficariae, resting mycelium, 70; parasitica, resting mycelium, 70
Persimmon, Japanese, 59
Phacidiaceae, 131
Phacidium pini, 131
Phaseolus, wilt, 35
Phoenicococcus marlatti, 146
Phoma, 71, 197, 201, 229, 230, 244; betae, 76; pomi, 249, 250
Phomopsis, 244, 245; citri, 190, 191
Phyllosticta, 197, 201, 229
Phylloxera, 150
Physalospora cydoniae, 290; entaxia, 295; fallaciosa, 295; festucae, 295; nigropunctata, 295
Phytopathological problems, observations on in Europe and America, 77
Phytopathological Society, American, 65
Phytophthora, 44, 45, 223; resting mycelium, 70; erythroseptica, 187
Picea engelmanni, Herpotrichia on, 152–155, Peridermium on, 17, winter injury, 112; excelsa, Herpotrichia on, 152-155; parryana, Peridermium on, 17, winter injury, 112
Picro-formal, 4
Pigeon-pea, 36, 38
Pineapple, disease of, 75
Pinus austriaca, Cronartium on, 309; banksiana, Peridermium on, 306; cembra, 146; contorta, Neopeckia on, 157, Peridermium on, 16, 167, 250, 251, root rot, 111, smelter injury, 113, winter injury, 112, 113; divaricata, Cronartium on, 308; echinata, Cronartium on, 309; flexilis, root rot, 111, smelter injury, 113, 114, winter injury, 112; lambertiana, 146; montana, Herpotrichia on, 152-155; monticola, 146; murrayana, Neopeckia on, 152, 156, 157, Peridermium on, 251; ponderosa, Cronartium on, 308, Peridermium on, 15, 62, root rot, 111, winter injury, 112; radiata, Peridermium on, 16; rigida, Cronartium on, 62, 308-310, Hypoderma on, 137, Peridermium on, 250; strobus, 73, 146, 306, bark blight, 130, leaf blight, 133, 252, heart rot, 133; sylvestris, bark blight, 133, Cronartium on, 308, 309, Peridermium on, 62, 306; taeda, Cronartium on, 309; virginiana, 129, Cronartium on, 308, 309, Peridermium on, 250
Pionnotes, 38; definition of, 24
Pisum, 28, 35–38; sativum, wilt, 30; see pea
Plagiognathus politus, 273
Plasmodiophora, 71
Plasmopara halstedii, resting mycelium, 70
Platanus wrightii, root rot, 111
Platymetopius acutus, 273
Plenodomus, 244, 245; **destruens**, 245
Plowrightia morbosa, 246, 311
Plum, blight, 3; brown rot, 79, 106, 109; crown gall, 59; pocket, 109; Plowrightia on, 246, 311; rust, 270; silver leaf disease, 80; see Prunus
Poa, Ramularia on, 207
Polyporus, 200; berkeleyi, 101; dryadeus, 285; dryophilus, 111, 285, 286; friesii, 286; fulvus, 286; vulpinus, 286
Populus, Polyporus on, 286; nigra, Nectria on, 227; tremuloides, heart rot, 111, root rot, 111
Possibilities of disease resistance in cabbage, 71
Potato, black heart, 180; "blindness," 40; curly leaf, 69; downy mildew, 78; Eisenfleckigkeit, 182; Gibberella on, 25; hollow heart, 182; internal brown rot, 182; leaf roll, 28, 69; mosaic, 69; powdery scab, 18; Ramularia on, 210, 223; rosette, 69; rots, 30–32, 41, 69, 74; scab, pathological anatomy, 255; sprain 182; streak, 69; tuber rot and ring discoloration, 40; wart disease, 78, 146, 256; wilt, 36–42, 69; see Solanum tuberosum and sweet potato
Powdery mildew, grape, 84
Powdery scab of potatoes, Spongospora subterranea (Wallr.) Johns., 18

Preliminary note on Polyporus dryadeus as a root parasite on the oak, 285
Production of secondary sporidia by Gymnosporangium, 282
Prunes, 59
Prunus allegheniensis, crown gall, 59; americana, Plowrightia on, 246; amygdalus, crown gall, 59; armeniaca, crown gall, 59; avium, crown gall, 59; cerasifera, crown gall, 59; davidiana, crown gall, 59; domestica, crown gall, 59; integrifolia, crown gall, 59; mahaleb, crown gall, 59; orthosepala, crown gall, 59; padus, abnormal roots, 115; Nectria on, 227; pennsylvanica, 311; Plowrightia on, 246; persica, crown gall, 59; platycarpa, crown gall, 59; serotina, Plowrightia on, 246; simonii, crown gall, 59; triflora, crown gall, 59; virginiana, 311, Plowrightia on, 246; see cherry, peach and plum
Pseudomartiella, 204, 224
Pseudomonas, 71, 170
Pseudotsuga taxifolia, winter injury, 112
Puccinia graminis, 178
Puccinia pruni-spinosa killing plum nursery stock, 270
Pucciniastrum myrtilli, 73
Pure culture of Phytophthora infestans DeBary and the development of oöspores, by PETHYBRIDGE, G. H. and MURPHY, P. A., review of, 187
Pure culture method for differentiation of species, 25
Pycnosphaerella, 205, 229
Pyrus betulifolia, crown gall, 59; communis, crown gall, 59, Nectria on, 227; malus, 295, Nectria on, 227; malus chinensis, abnormal roots, 115; pashia, crown gall, 59; see apple and pear
Pythiacystis citrophthora, 194
Pythium de baryanum, 76
Pyxidiophora nyctalidis, 203

Quarantine, plant, 85, 143
Quercus, Endothia on, 61; Fusarium on, 38; Nectria on, 227; root rot, 111; alba, root rot, 286; agrifolia, Cronartium on, 16; minor, root rot, 286; nigra, root rot, 286; pedunculata, Auricularia, on, 192; prinus, root rot, 286; rubra, 129, root rot, 286; texana, root rot, 286; velutina, root rot, 286; see oak
Quince blotch and apple fruit spot, 249
Quince, blight, 3; brown rot, 79; crown gall, 59; Nectria canker, 80; Sphaeropsis on, 293; see Cydonia

Ragweed, see Ambrosia
Ramularia, Mycosphaerella, Nectria, Calonectria, Eine morphologisch pathologische Studie zur Abgrenzung, von Pilzgruppen mit cylindrischen und sichelförmigen Konidienformen, 197
Ramularia, 26, 27, 33, 207, 220; anchusae, 209, 216, 222; arvensis, 220; brunnea, 230; calcea, 220; **candida,** 209, 216, 220–222; cynarae, 208; **didymum,** 33, 41, 207, 209, 221, 225; equiseti, 223; **eudidyma,** 209–211, 216, 221, 222; fragariae, 230; kriegeriana, 222; macrospora, 207, 209, 216, 222; magnusiana, 209, 216, 221; **olida,** 202, 210–212, 216, 223, 224; pratensis, 220; pusilla, 207; rumicis, 220; rumicis scutati, 220; sagittariae, 220; saniculae 222; saprophytica, 220; tulasnei, 207, 208, 230; urticae, 207, 208; vincae, 220
Ramulariella, 204, 224
RANKIN, W. H., Some field experiments with the chestnut canker fungus (abstract), 73; see STEWART, F. C.
Ranunculus, Ramularia on, 207, 216; fascicularis, Peronospora on, 70
Raspberry, Nectria on, 224; Ramularia on, 211; see Rubus
Red gum, 59
REDDICK, DONALD, The Thielavia disease of violets (abstract), 74
Reduviolus ferus, 273
Relative prevalence of pycnospores and ascospores of the chestnut blight fungus during the winter, 296
Resting mycelia of Phytophthora and other related species, 70
Rhacodium therryanum, 153, 154
Rhizoctonia, 42, 69, 70, 74, 76, 198
Rhodochytrium, another host for, 311; spilanthidis, 311
Ribes, Nectria on, 227; nigrum, abnormal roots, 115, proscription of, 73
Ring discoloration, potato, 40

Robinia pseudacacia, root rot, 111
Root rot, oak, 285; sugar cane, 93, 94
RORER, JAMES BIRCH, The use of the green muscardine in the control of some pests of sugar cane, 72, 88
Rosa arkansana, mildew, 270
Rosaceae, 59
Rose, anthracnose, 70; mildew, 270; stocks of, 149
ROSENBAUM, J., see WHETZEL, H. H.
Rosette, potato, 69
Roseum, 28, 32
Rot of grapes caused by Cryptosporella viticola, 20
Rotting of potato tubers by a new species of Phytophthora having a method of sexual reproduction hitherto undescribed, by PETHYBRIDGE, G. H., review of, 187
Rubus, Ramularia on, 33; idaeus, Hypomyces, on 225, Ramularia on, 222; see raspberry
Rusts, see Uredineae
Rutaceae, 59
Rye, rust, 179

St. John's disease, 38
Salix caprea, Nectria on, 227; purpurea, Nectria on, 227
Sand cherry, brown rot, 109
San Jose scale, 78, 143
Scab, apple, 265; cereal, 31; peach, 270; pear, 266; powdery, of potato, 18; common, of potato, 18, 255
Schinus molle, crown gall, 59
Schüttepilz, on pine, 133–139
SCHWARZE, C. A., see COOK, MEL. T.
Sclerotinia, 79; lettuce, 74; cinerea, 105–110; fructigena, 75, 106, 109; libertiana, 70, 74
Sclerotium, 71, definition of, 24; **bataticola,** 71, 161, 164, 165; rolfsii, 198
Scolecospores, 22
Sepedonium, 200
Septocylindrella, 205
Septocylindrium, 26, 27, 33, 206, 209; magnusianum, 220, 221; radicicolum, 222;
Septoria pisi in relation to pea blight, 51
Septoria, 204, 229; lycopersici, 58; pisi, 71; pyricola, 58
Sesamum, wilt, 35
SHEAR, C. L., Endothia radicalis (Schw), 61; Some observations on phytopathological problems in Europe and America, 67, 77; The type of Sphaeria radicalis Schw., 191; review by, 186
SHELDON, JOHN L., Some rose anthracnoses (abstract), 70
Silver leaf disease, 80
Siphocoryne avenae, 273
Small lettuce Sclerotinia, an undescribed species, 74
Smelter injury to forests, 113
SMITH, CLAYTON O., Some successful inoculations with the peach crown gall organism and certain observations upon retarded gall formation, 59, 72; Black pit of lemon, 69, 277
Smut, sugar cane, 75
Soil sterilizer, 177
Solanaceae, 30, 35
Solanum lycopersicum, 28–40, 74, see tomato; melongena, wilt disease, 33; tuberosum, 28, 32, 33, 180, 221, 230, see potato
Solidago, 250; lanceolata, 250
Some borrowed ideas in laboratory equipment, 175
Some field experiments with the chestnut canker fungus, 73
Some observations on phytopathological problems in Europe and America, 77
Some observations on Polyporus berkeleyi, 101
Some rose anthracnoses, 70
Some successful inoculations with the peach crown gall organism and certain observations upon retarded gall formation, 59, 72
Sonchus asper, rust, 306
Sow thistle, see Sonchus
Soy bean, bacterial disease, 75
SPAULDING, PERLEY, Notes on Cronartium comptoniae, 62; review by, 140; Notes on Cronartium comptoniae. II, 308
Spegazzinia ornata, 75
Sphaerella, 56; fragariae, 230; morieri, 56; pinodes, 56; solani, 229; tussilaginis, 230

Sphaeria, 226, coccinea, 214; coulteri, 156, 157; fragariae, 230; fragariaecola, 230; pinodes, 55; radicalis, type of, 191
Sphaeriales, 26, 295
Sphaeromena fimbriatum, 70, 71, 159-163
Sphaeropsis malorum, 81, 248, 288–293; peckiana, 290; pseudodiplodia, 290; viticola, 290
Sphaerostilbe, 24, 202, 203
Sphaerotheca humuli, 76
Spilanthes, 311
Spongospora subterranea, 18
Sporidia, secondary, of Gymnosporangium, 282
Sporodochium, definition of, 24
Sporotrichum, 230
Spot rot, Jonathan, 119
Sprain, potato, 182
Spruce, see Picea
Stem rot or Hawaiian "Iliau" disease of sugar cane, 93
Stem rot, sweet potato, 69
Sterculia acerifolia, crown gall, 59; diversifolia, crown gall, 59
Sterculiaceae, 59
Stereum purpureum, 80, 81
STEWART, F. C., and RANKIN, W. H., Cronartium ribicola and the proscription of Ribes nigrum (abstract), 73
STEWART, V. B., The importance of the tarnished plant bug in the dissemination of fire blight in nursery stock, 273
Stigmatea fragariae, 230
Storage rot, apple, 120
Strawberry, powdery mildew, 81; see Fragaria
Streak, potato, 69 sweet pea, 74
Streptothrix, 255; chromogena, 261
Stripe disease, barley, 75
Stroma, definition of, 24; unreliability as a taxonomic character, 24
Studies of fungus parasites belonging to the genus Glomerella, by SHEAR and WOOD, review of, 140
Studies on the Fusarium problem, 24
Studies on the water core of apple, 68, 121
STURGIS, W. C., Herpotrichia and Neopeckia on conifers, 152
Sugar beets, see beets
Sugar cane, borer, 88; diseases of, 75, 88; root rot, 93; stem rot, 93; use of green muscardine in control of pests, 88
Sulphur, for brown rot, 118; for hop mildew, 76
Sweet pea, bacterial disease, 74; damping-off, 70; diseases of, 70
Sweet potato, black rots, 70, 159, 164; charcoal rot, 161; foot rot, 243; stem rot, 68

Tar, for cankers, 109
Tarnished plant bug, importance in dissemination of fire blight, 273
TAUBENHAUS, J. J., The diseases of the sweet pea (abstract), 70; The black rots of the sweet potato, 70, 159
Test tube rinser, 176
Thea, Nectria on, 229
Theobroma cacao, Nectria on, 229
Thielavia disease of violets, 74
Thielavia, 160; basicola, 70, 74
Thielaviopsis paradoxa, 75
Thyridaria tarda, 75
Tiefschorf, potato, 256
Tilia, abnormal roots, 115
Tobacco, wilt, 72
Tomaspis varia, 88
Tomato, fruit rot, 198; Phoma on, 230; Sclerotium on, 198; see Solanum lycopersicum
Trametes pini, 133, 142
Trees, forest, diseases of, 15, 59, 61, 62, 67, 68, 73, 78, 101, 111, 129, 142, 152, 167, 191, 192, 248, 249, 250, 251, 252, 285, 296, 306, 311
Trichoderma köningi, 159
Trichosphaeria, 155
Trientalis, Ramularia on, 221
Triticum, agar cultures of, 74; damping-off, 45, 218, 231; Giberella on, 25; vulgare, 222
Trypeta ludens, 146
Tsuga canadensis, rust, 73; heterophylla, root rot, 111
Tuber rot and ring discoloration of the potato, 40
Tubercularia, 42; vulgaris, 229
Tuberculariastrum, 203, 229
Tuberculina persicina, 82

Tubiflorae, 35
Tulip, Fusarium on, 38
Twig canker on black birch, 248
Two fungi as causal agents in gummosis of lemon trees in California, 194
Tylenchus dipsaci, 221
Type of Sphaeria radicalis, 191
Typhlocyba rosae, 273

Ulmus americana, winter injury, 62; campestris, Fusarium on, 224
Undescribed species of Peridermium from Colorado, 251
Unreliability of the stroma as a taxonomic character, 24
Uredineae, 207; on apple, 72, 282; on asparagus, 78, 82; on aster, 16; on Castilleja, 15, 167, 250; on Comptonia, 62, 308; on Coreopsis, 250; on Euthamia, 250; on forest trees, 15, 62, 73, 78, 146, 167, 249, 250, 251, 306, 308; on grain, 178; on Helianthus, 250; on Ribes, 73; on rye, 179; on Solidago, 250; on Sonchus, 306
Uredinopsis atkinsonii, 73; mirabilis, 73; osmundae, 73; phegopteridis, 73; struthiopteridis, 73
Uromyces pisi, 12
Urticaceae, 59
Use of the green muscardine in the control of some sugar cane pests, 88

VAUGHAN, R. E., Mycosphaerella pinodes the ascigerous stage of Ascochyta pisi (abstract), 71
Ventricosum, 28, 32
Venturia pomi, 265, 268
Vermicularia, 43
Verticillium, 33, 42; on okra, 183; alboatrum, 33, 40, 45, 69, 183, 184, 221
Vicia, wilt, 35
Victoria bottle tree, 59
Vigna, wilt, 28, 29, 35-39
Violets, Thielavia on, 74

Walnut, crown gall, 59
Ward, Harry Marshall, biography, 1
Wart disease, potato, 78, 146, 256
Water core, apple, 68, 121
Water-heating device, 175
Watermelon, wilt, 36-39
WEIR, JAMES R., Some observations on Polyporus berkeleyi, 101; Destructive effects of Trametes pini and Echinodontium tinctorum, 142; Auricularia mesenterica (Dicks.) Pers., 192; An epidemic of needle diseases in Idaho and western Montana, 252
Wheat, see Triticum
WHETZEL, H. H., and ROSENBAUM, J., The American Botrytis blight of paeonies (abstract), 70
White elm, winter injury, 62
White pine, see Pinus strobus
WILCOX, E. MEAD, Some laboratory conveniences for the pathologist (title), 75; Notes on some Nebraska potato diseases (title), 75
Willkommiotes, 205, 206. 225, 226
WILSON, GUY WEST, Fusarium or Verticillium on okra in North Carolina? 183
Wilt diseases, 28
Wind dissemination of the chestnut blight organism, 68
WINSTON, J. R., Effect of the steam-formalin treatment on certain soil organisms (abstract), 67, 74; see FULTON, H. R.
Winter injury, to trees, 62, 111
WOLF, FREDERICK A., Abnormal roots of figs, 115; Melanose, 190; Control of apple black-rot, 288; Another host for Rhodochytrium, 311
WOLLENWEBER, H. W., Studies on the Fusarium problem, 24; The diagnosis of wilt diseases and the diagnosis of ascomycetes from their conidial stage (title), 75; Ramularia, Mycosphaerella, Nectria, Calonectria. Eine morphologisch, pathologische Studie zur Abgrenzung von Pilzgruppen mit cylindrischen und sichelförmigen Konidienformen, 197

Xylaria, 25

Yellows, cabbage, 71; peach, 143
YOUNG, H. D., note by, 195

Zea mays, Gibberella on, 25